



FIT3179 ASSIGNMENT 1 PROPOSAL

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Tableau URL:

https://public.tableau.com/app/profile/jessica.lim7372/viz/PROJECT1_16620852273670/Dashboard2?publish=yes

DOMAIN

Population in Indonesia (2050 – 1955)

WHY

Indonesia which is my country is the world top 3 on the populations so Indonesia country. So I decided to analyze the population of my home country.

DATASETS

<https://www.kaggle.com/datasets/anandhuh/population-indonesia>

Attribute Information

1. Year - Years from 2020-1955
2. Population - Population in the respective year
3. Yearly % Change - Percentage Yearly Change in Population
4. Yearly Change - Yearly Change in Population
5. Migrants (net) - Total number of migrants
6. Median Age - Median age of the population
7. Fertility Rate - Fertility rate
8. Density (P/Km²) - Population density (population per square km)
9. Urban Pop %- Percentage of urban population
10. Urban Population- Urban population
11. Country's Share of World Pop - Population share
12. World Population - World Population in the respective year
13. India Global Rank - Global Rank in Population

Population of Indonesia (2050-1955)												
Data	Code (0)	Discussion (0)	Metadata	58		New Notebook						
#	Year	# Population	# Yearly % Change	# Yearly Change	# Migrants (net)	# Median Age	# Fertility Rate	# Density (P/Km ²)	# Urban Pop %	# Urban Population	#	
	18 total values	18 total values	18 total values	18 total values								
2020	275322015	1.87	2898047	-98955	28.8	2.42	151	56.4	154188546			
2019	27625568	1.1	2959025	-98955	28.8	2.42	149	55.8	159900598			
2018	267876543	1.14	3019508	-98955	28.8	2.42	146	54.5	144294861			
2017	26458963	1.18	3094682	-98955	28.8	2.42	144	53.9	146972925			
2016	261556381	1.23	3173125	-98955	28.5	2.45	143	53.3	137634761			
2015	236383256	1.33	3289888	-98889	27.2	2.5	133	58.1	121852988			
2010	241834215	1.34	3188949	-266737	25.6	2.53	125	46.8	104155654			
2005	226289478	1.38	2955129	-229931	24.4	2.55	117	42.6	88851487			
2000	211513823	1.44	2915913	-13534	24.4	2.55	109	36.1	71853577			
1995	196934268	1.66	3104172	-7882	22.8	2.9	100	38.1	55491343			
1990	181413462	1.92	3286198	82256	21.3	3.4	98	38.6	43849412			
1985	164982451	2.27	3586023	95816	19.9	4.11	91	26.1	32691887			
1980	147447836	2.44	3333422	75749	19.1	4.73	81	22.1				

Figure 1.1: Dataset Screenshot

DESIGN INSPIRATIONS



Figure 1.2: Inspirations for Charts

DESIGN PLAN

Attribute Information

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Because the data is super simple and is a by time data. I will use a lot of graph with x and y axis to show the timeline and won't use all of the attributes as there are too many attributes. I will use bar, line, shape, area and packed bubbles graphs.

BRIEF DESCRIPTION ON THE DATA

The data is actually a really simple data found in the Kaggle about Indonesia Populations there is some other dataset that came with the data but it was for geographical data so I only use the yearly details on the excel.

They use data from each 5 years but from 2015-2020 somehow they have complete sets and it makes the data looks a bit messier if not excluded but I decided to include it because it can serve as a data for analysis for the reader also and is equally important with the other data by yearly value.

HOW I MADE THE DASHBOARD

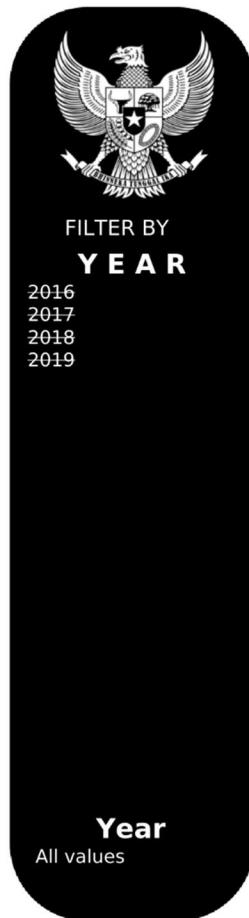
For better layout and neater layout I make the background by figma with the windows and texts then proceed to export it as an image for the dashboard background and proceed to add some of the graphs. I decided to make the text from Figma because I think the control for the text in Figma is way neater than the one in tableau.

Figma url : <https://www.figma.com/file/5k96deXLLsY1F6W7z9vjll/Untitled?node-id=1%3A13>



IMPLEMENTATION

FINAL RESULT

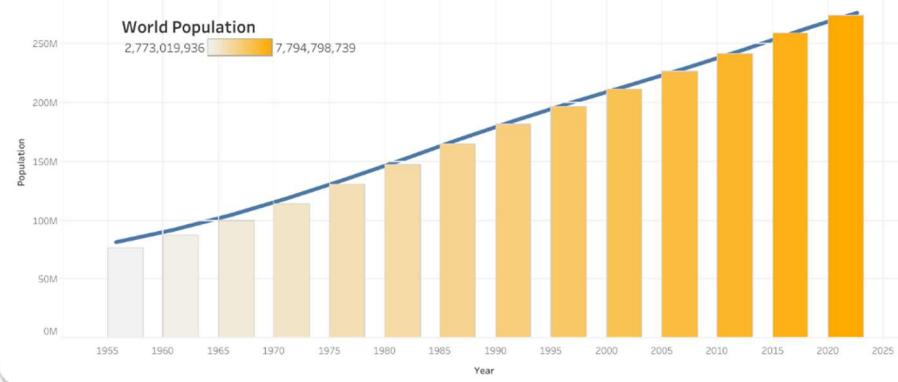


THE 4TH MOST POPULOUS COUNTRY IN THE WORLD I N D O N E S I A

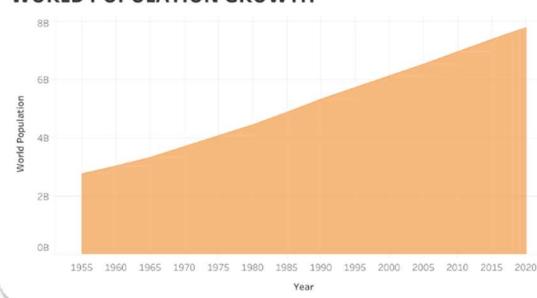
With a population totaling around **260 million** individuals, Indonesia is the **fourth-largest** country in terms of population size. Its ethnic composition is characterized by **wide variety**.

However, more than half of the population can be classified as belonging to **two main ethnic groups**. This section zooms in on the people of Indonesia.

INDONESIA POPULATION VS WORLD



WORLD POPULATION GROWTH



INDONESIA POPULATION GLOBAL RANK

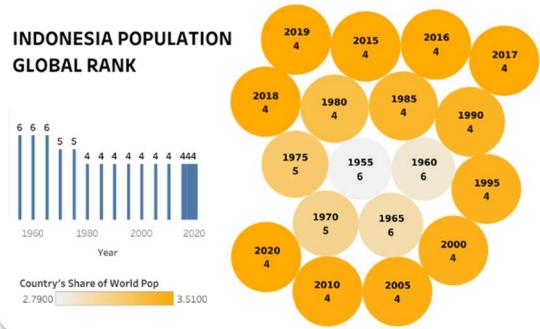


Figure 2.1: Final Dashboard pt.1

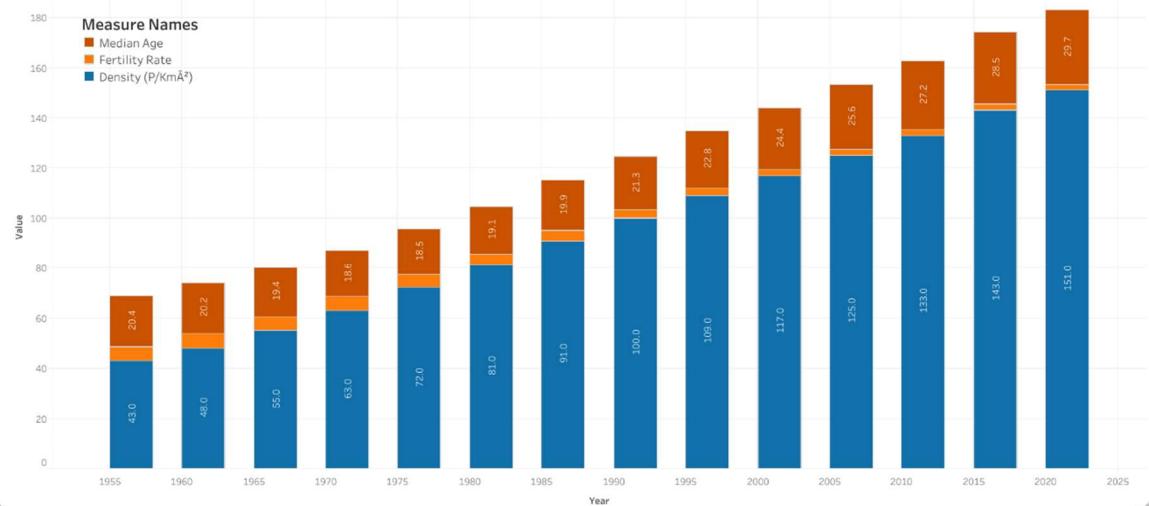
*CONTINUED TO NEXT PAGE

AGE STRUCTURE OF INDONESIA

One of the most important **strength** of Indonesia's demographic composition in relation to its **economy** is that the country has a **young population**. This young population implies a - potentially - **large workforce** (thus making it of vital importance that this workforce can be educated to obtain higher skills and can be absorbed by employment opportunities).

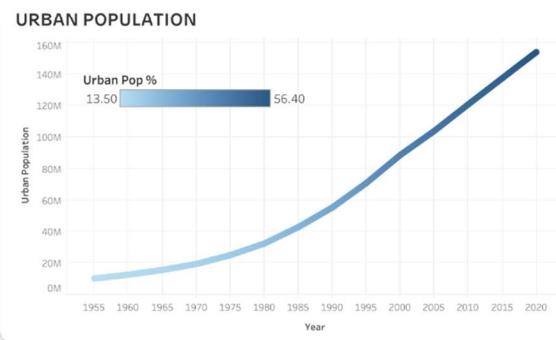
Indonesia's total **median age** is **28.6 years (2016 estimate)**. This indicates that one half of the population is older than 28.6 years, while the other half is younger than this figure. When divided in sexes the **female median age is one year older (29.1 years)** as compared to the **male counterpart (28.1 years)**. Below is the chart representing the median age, density and fertility of Indonesia.

MEDIAN AGE, FERTILITY RATE AND DENSITY



URBAN POPULATION

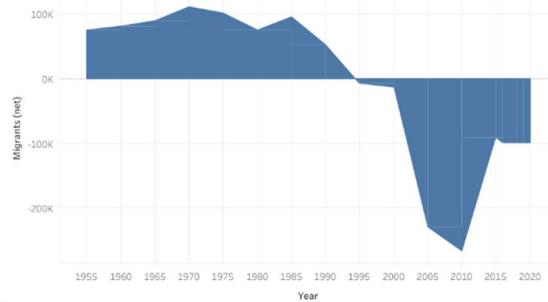
The UN also projects that by **2050** two thirds of Indonesia's population will live in **urban areas**. Over the last forty years the country has experienced a process of rapid urbanization, resulting in the current situation in which over **half of Indonesia's total population resides in urban areas** (see chart below). The biggest cities of Indonesia are found on the island of Java in the capital city of **Jakarta** that had **more than 10 million** inhabitants.



MIGRANTS

Indonesia has **one of the world's largest migrant worker communities**. In 2016, an estimated **9 million** Indonesians were working **abroad**. Half were **women**, the majority employed in the informal sector as **domestic workers**. Migration and mobility are intrinsic characteristics of the many Indonesian cultures that shape its population of 267 million people. See below for migrants chart.

INDONESIA MIGRANTS CHART



Source : <https://www.indonesia-investments.com/culture/population/item67>

<https://www.migrationpolicy.org/article/indonesia-country-grappling-migrant-protection-home-and-abroad>



Figure 2.2: Final Dashboard pt.2

URL

https://public.tableau.com/app/profile/jessica.lim7372/viz/PROJECT1_16620852273670/Dashboard2?publish=yes

ERROR IN THE IMAGE AND URLs

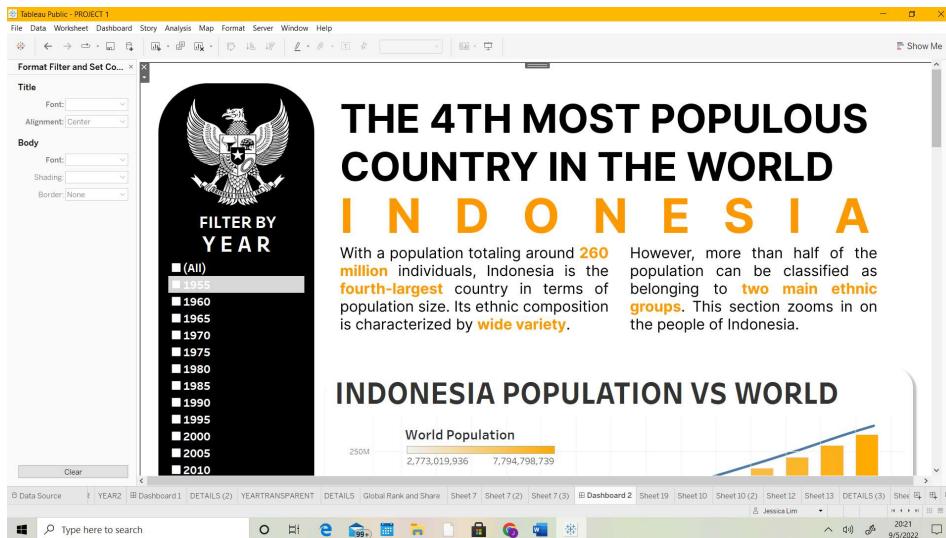


Figure 2.3: Error final result pt.1



Figure 2.4: Error final result pt.2

There was supposed to be no spaces in the left part of the graph unlike the picture downloaded from the url. And it was supposed to look neater from my laptop tableau side.

WHY AND HOW: PROCESS OF CHOOSING IDIOMS

1. Line + Bar Chart for Indonesia Population
 - o As I need to show the population in Indonesia for each year, I need to do either bar and line chart. Bar is better for data visualization but line is better to show the time correlation so I decided to put both as one chart in order to story tell the audience easier. Other than that, the chart is one of the biggest charts on the top so i think it needs to be more complicated so reader will be more interested to read.
2. Area Chart for World Population
 - o As earlier I have used the bar chart so near, I figure that if I use another bar chart the reader won't be interested to read the rest so I use another which is the area chart as its also emphasize the data is that big as the world population other than that it also show the x and y axis which I need because I need to specify the timeline also.
3. Bar and Packed bubbles chart for Indonesia population rank
 - o Making the country share as the color and size as the rank makes it easier to make the reader interested but I figured that bubbles can also make it hard for reader so I added the small bar chart beside it if the audience is in doubt other than that the circle looks unique to catch the audience eyes.
4. Stacked bar chart for median age, fertility and density
 - o I was about to use 3-line charts but I think it won't be as visually appealing. So, I use a stacked bar instead to show the counts and rates. And specify it by color, I also label it down so it won't be confusing to read. And I compile the 3 categories together because I think it relates to how much it affects the working population.
5. Line chart for urban population
 - o Because there are too many bars chart, I use the line chart as I haven't use line chart that much and it will perfectly describe the connection between the urban population and timeline as it keeps getting up every time.
6. Area Chart for Migrants
 - o As the migrant's data in the later half have negative effects, I think area chart would be the best because its so much clearer to see negative data with area chart. Other than that, we can clearly see the time correlation also that's why I chose the area chart.

FEATURES

- Filter by bar/ circle in the graphs : To make it more interesting I use filter on bars and circles too as the filter in case if the audience is interested.
- The exclude years check list filter:
This serve for the audience to exclude the year they don't want to choose so the graph will be much more focused one by one if they want to skip the range.
- The range filter:
If the reader want to see it by yearly range it would be easier to use this range filter instead.

JUSTIFICATIONS OF DESIGNS

LAYOUT

The visualization is made to be as symmetrical as possible and have center point to grab the audience attention. It is well-balanced, have sufficient white space, minimal sight lines and have its visual center above the sheet's center.

I also use pictures of temples and building of Indonesia as an accent for proper end of layout and as decorations and use the Burung Garuda which is one of the important symbol of Indonesia as the identity of Indonesia. I believe as it was placed on the top and bottom it won't disturb the audience. It was also monochrome so it won't waste ink that much.

COLOUR

The color only uses the color blind or monochrome color palate which only consist of black, white, orange and blue and a bit of red to make it as color blind friendly as possible and have neater color scheme. It is done to think about the ink ratio but keeps it interesting because black and white is also too boring to catch reader attention. Other than that, I also make the chart tiles using figma to make the chart stands out better by using black shadow as accent to pop it up. Because of the simple categories and style, I can use this color pallets which enables me to use minimum colors.

But on the corner left top, I'm aware that I use the background color black instead of white which in certain cases can disturb the reader but I'm doing so to minimize the white spaces and to make the filter features pop up so easier to find considering I have such a long dashboard layout.

FIGURE AND GROUND

I believe with the template design of the windows shadows; we can clearly differentiate between the figure and ground in the visualization. Also, the fact that I use the white background makes it easier for the reader to notice the charts and text. The elements that use dark or vibrant color also contrast well with the background. So I believe that my visualization is easier to read.

TYPOGRAPHY

For the typography I use the Tableau fonts especially the normal, bold and semibold. And from Figma I use the Inter font which I think is the most similar with the Tableau font. I tried to make the title bigger than the second heading and so on. I also highlight the key points in the paragraph as the key identifier so reader will be more interested to read. I believe that because of the it was easier to read.

STORYTELLING

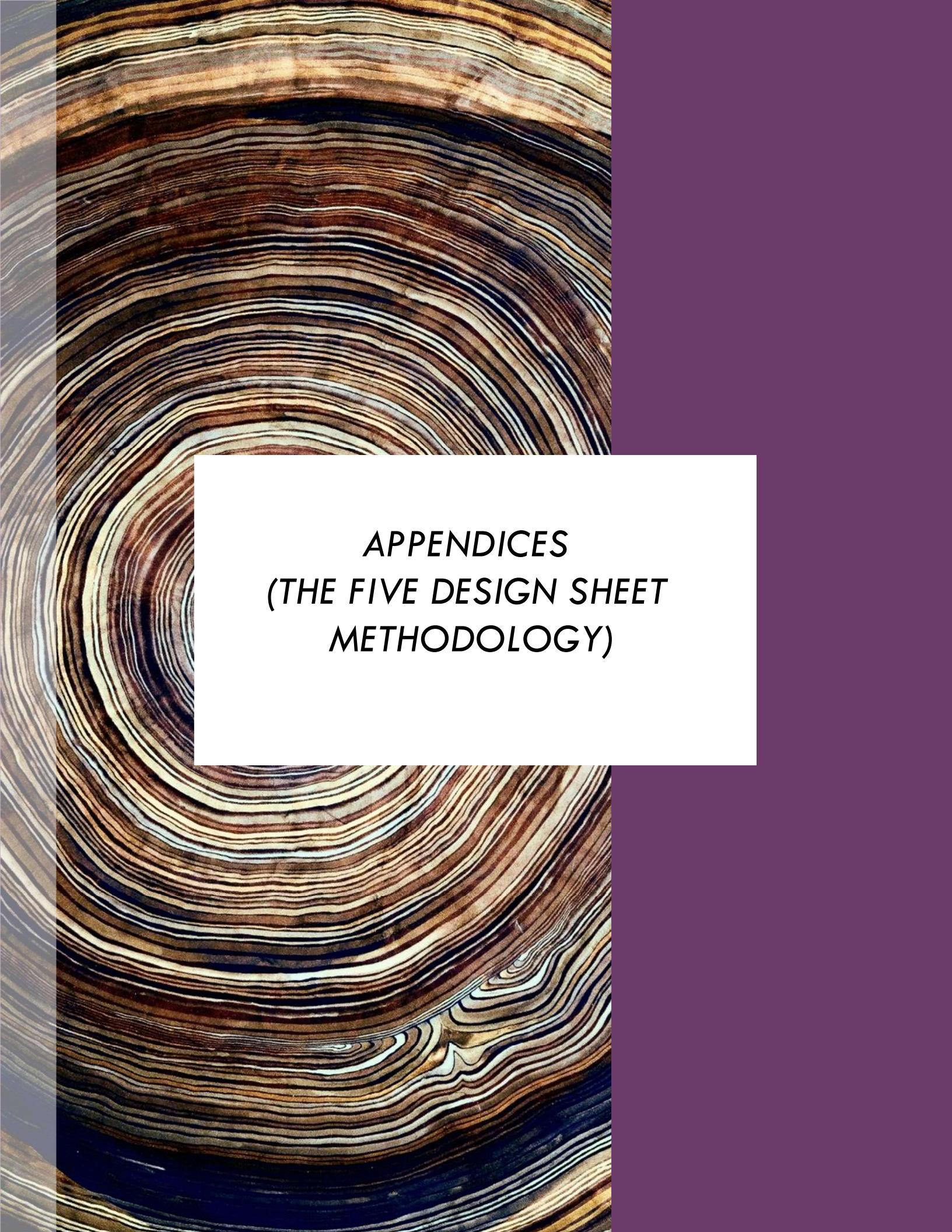
My visualization uses the visualization genres of magazine style. Because I use the charts then proceed to have the article below and etc. I use this genre because I think its easier to state facts this way and makes it looks more professional.

REFERENCES

Population of Indonesia. (2017, September 5). Retrieved from <https://www.indonesia-investments.com/culture/population/item67>

Overview. (2022, April 5). Retrieved from <https://www.worldbank.org/en/country/indonesia/overview>

Indonesia: A Country Grappling with Migrant Protection at Home and Abroad. (2018, September 19). Retrieved from <https://www.migrationpolicy.org/article/indonesia-country-grappling-migrant-protection-home-and-abroad>



APPENDICES
(THE FIVE DESIGN SHEET
METHODOLOGY)

IDEAS

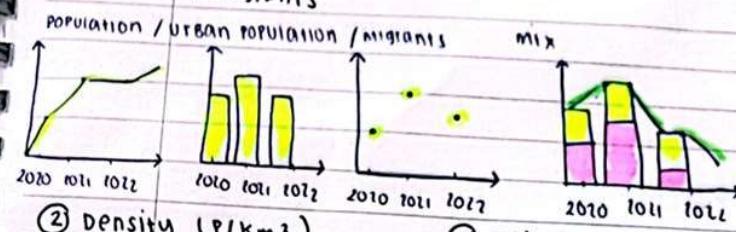
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FILTER

Date:

★ DOMAIN = POPULATION IN INDONESIA (2050 - 1955)

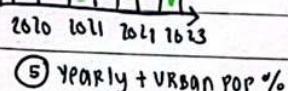
① TRENDS (YEARS - POPULATION - URBAN POPULATION + MIGRANTS)



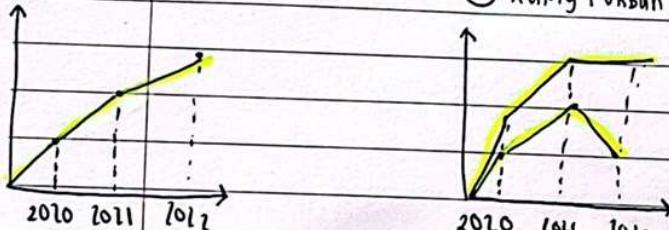
② DENSITY (P/KM²)



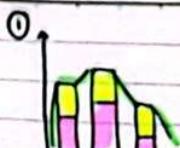
③ median age



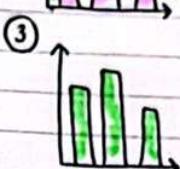
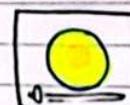
④ FERTILITY RATE



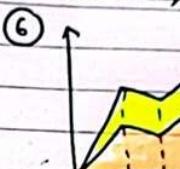
⑤ YEARLY + URBAN POP %



②



④ + ⑤



* design may differ a bit.

CATEGORIZE

① TRENDS (POPULATION - URBAN POP - MIGRANTS)

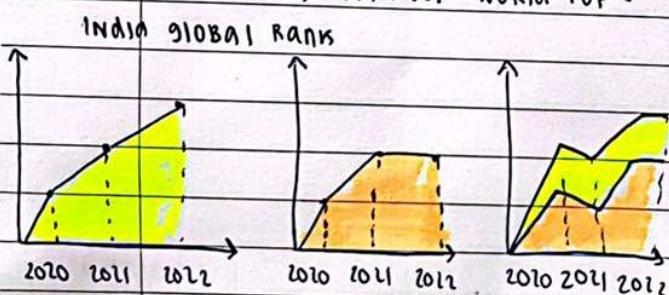
② DENSITY

③ MEDIAN AGE

④ FERTILITY RATE

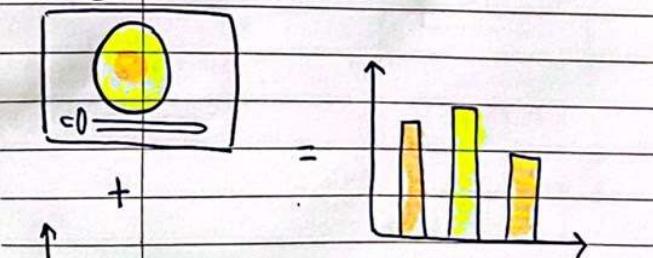
⑤ YEARLY + URBAN POP

⑥ COUNTRY'S SHARE OF WORLD POP + GLOBAL RANK



COMBINE & REFINED

② + ③



QUESTIONS ???

① IS IT ANSWERING CLIENTS NEED?

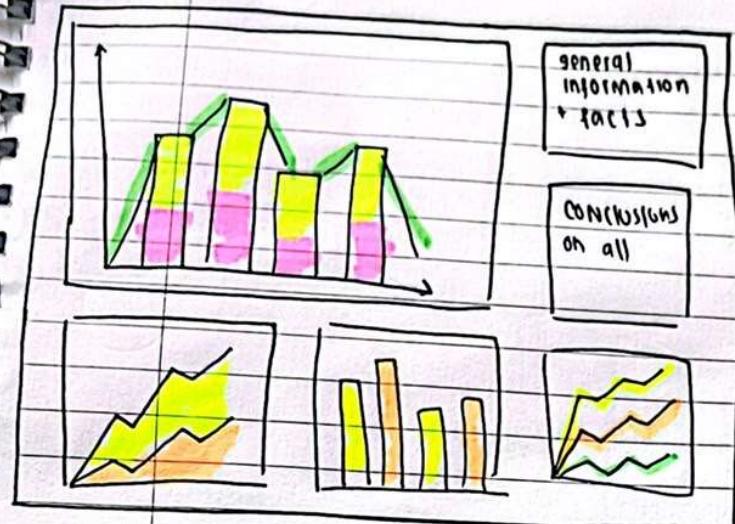
② IS THE VISUALIZATION POSSIBLE / EASY TO READ?

* COLOUR = DENSITY (P/KM²) ③ USE COLOUR PALETTE?

+ BAR / TD DIMENSION = MEDIAN

Layout

DASHBOARD
VIEW



title: FULL NARRATIVE
view:

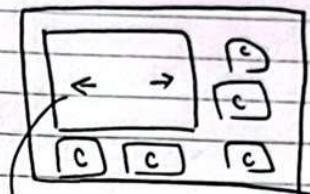
AUTHOR JESSICA LIM

DATE 26/06/2022

SHEET 2

TASK INDONESIA POPULATION
VISUALIZATION

OPERATION:



> click left and right to
change time period.



CONCLUSION OF ALL

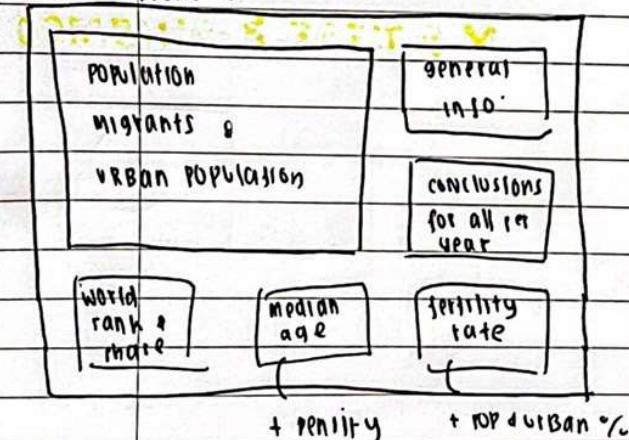
> click to
expand and see
details

> HOVER to see exact
calculations

* FINAL may
change a bit
due to adaptations

FOCUS

IN DASHBOARD.



DISCUSSION

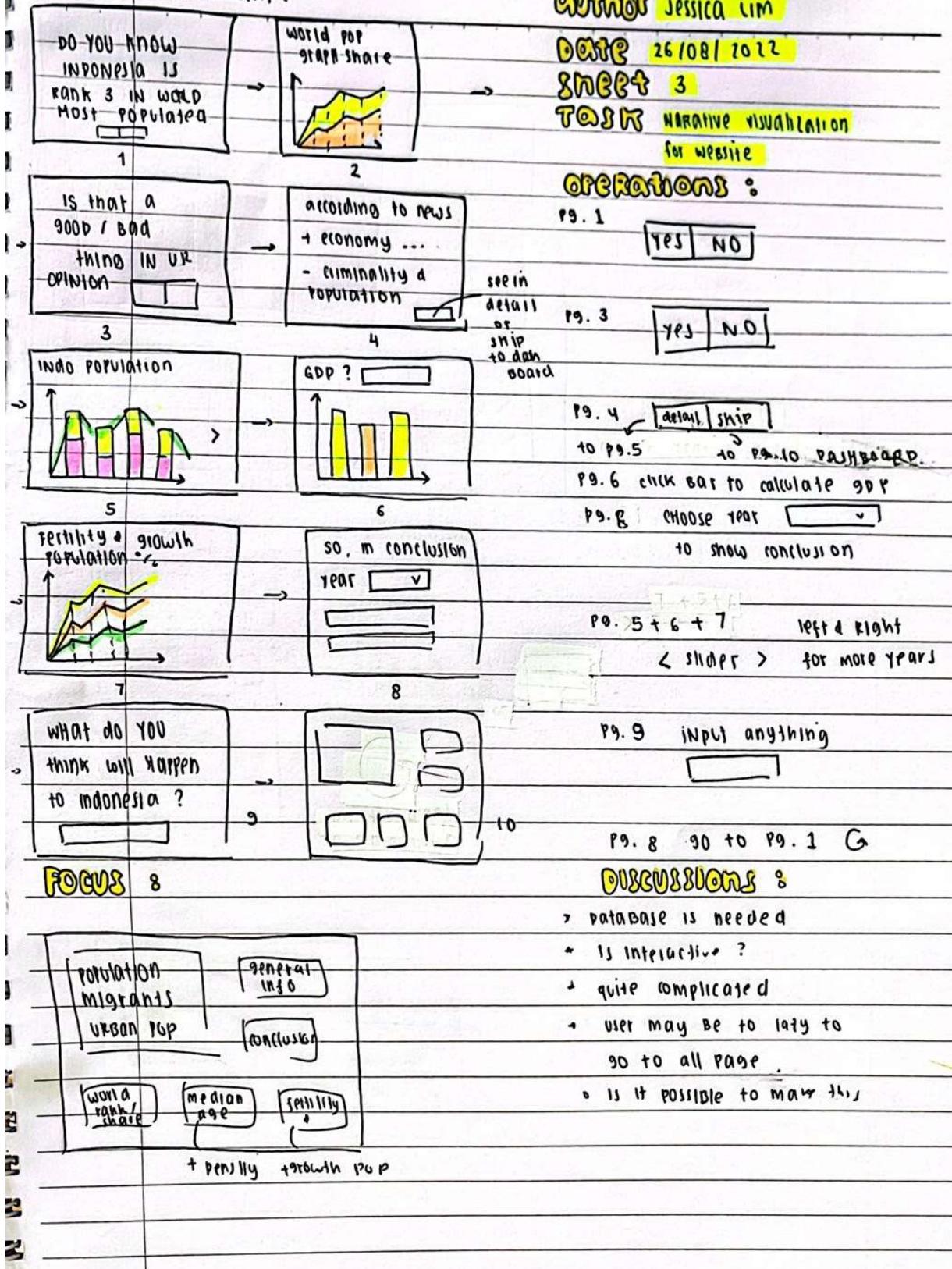
- * TOO PACKED INFORMATION
- * CAN IT BE A GOOD DASHBOARD VIEW?
- * NEED MORE ENGAGEMENT BY USER?
- * IF PRINTED DATA WONT BE COMPLETE?
- * PAGE HTML NOT BIG ENOUGH



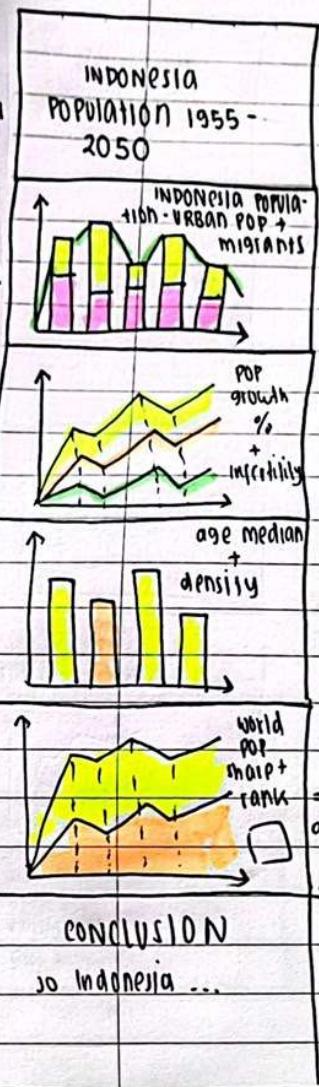
Scanned with CamScanner

Layout

with p3 library / javascript



Layout



title SIMPLE NARRATIVE VISUALIZATION

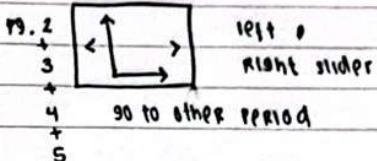
author JESSICA LIM

Date 16/08/2022

sheet 4

task creative narrative visualization

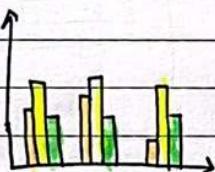
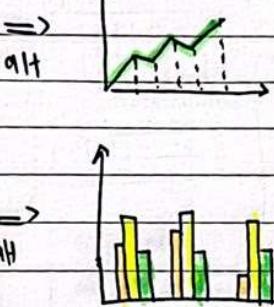
OPERATIONS:



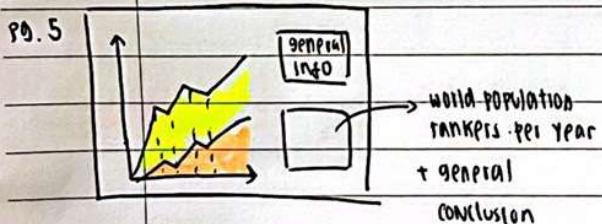
Pg. 3 CALCULATE GDP

PER POINT YEAR

Pg. 5 check point show
fun fact or etc.



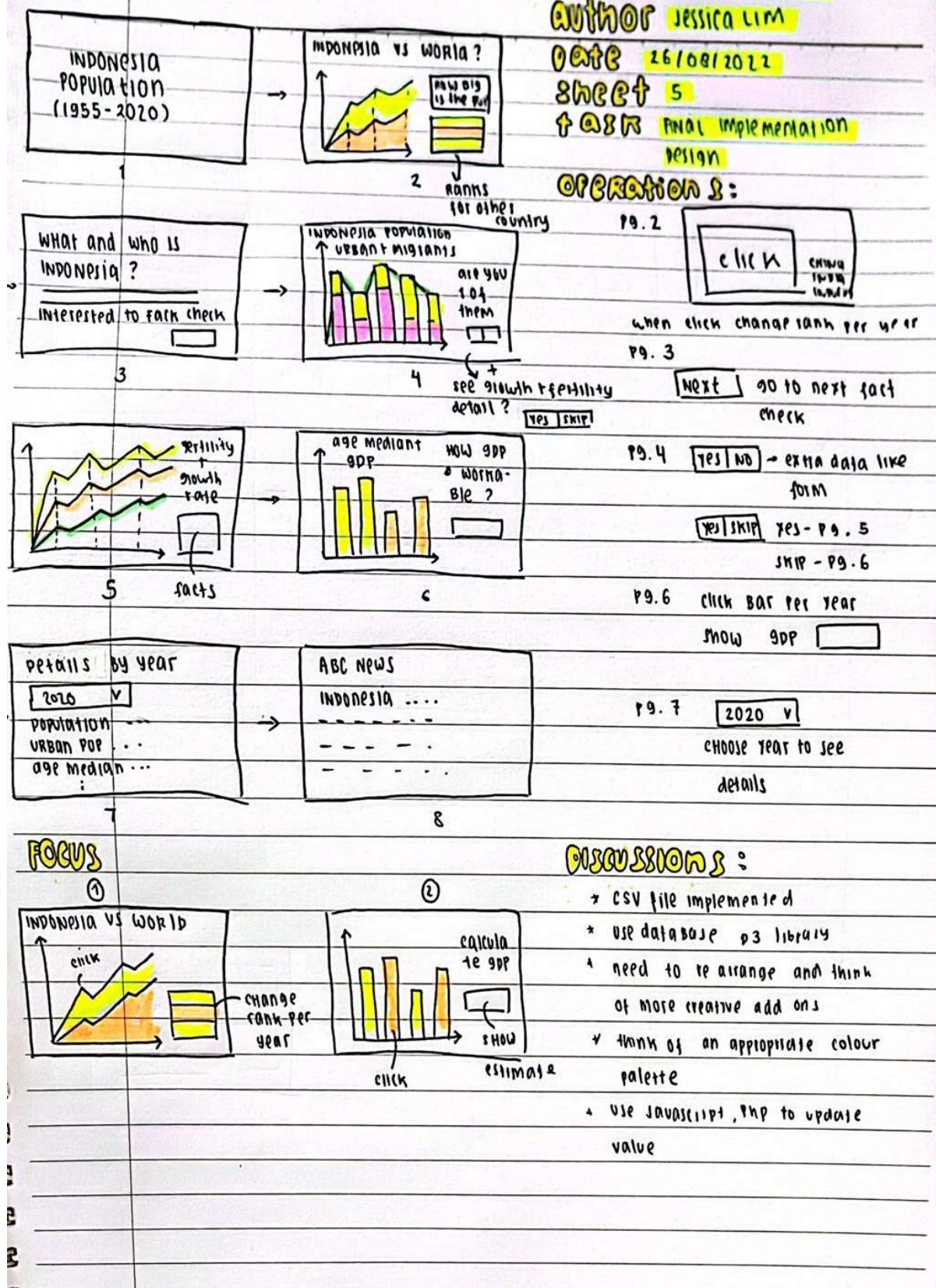
FOCUS



DISCUSSION:

- * IS IT CRUCIAL TO PRESENT AGE MEDIAN?
- * IS THE ARRANGEMENT GOOD TO READ?
- * IS THE INFORMATION ENOUGH?

LAYOUT



*NOTES:

- There are many differences in the 5DOS and the final dashboard because I make last minute changes that I think fit the criteria, assignment and give better implementations instead.